CALIFORNIA ENERGY COMMISSION

1516 Ninth Street Sacramento, California 95814

Main website: www.energy.ca.gov



Notice of Committee Workshop on the July 2006 California Heat Storm

The California Energy Commission's Electricity Committee (the Committee) will conduct a one-day workshop to review and discuss the recent heat storm in California and to determine what lessons can be learned in order to better prepare for the next heat storm.

Commissioner Jeffrey D. Byron is the Presiding Member and Commissioner John L. Geesman is the Associate Member of the Committee. Other Commissioners may attend and participate in this workshop.

The workshop will be held:

TUESDAY, AUGUST 29, 2006 9:00 a.m. CALIFORNIA ENERGY COMMISSION 1516 Ninth Street First Floor, Hearing Room A Sacramento, California (Wheelchair Accessible)

Audio from this meeting will be broadcast over the Internet.

For details, please go to:

www.energy.ca.gov/webcast

To arrange for a call in and participate in the meeting, Please call (888) 323-9686 by 9:00 a.m. Passcode: Committee Call Leader: Sylvia Bender

Purpose

The California Energy Commission is conducting a workshop to collect information and stimulate discussion of the electricity supply and demand implications of the July 2006 heat storm in planning for future electricity needs in the state. To maximize the value of this effort, a list of "Key Questions" is provided.

The workshop agenda as well as workshop documents will be posted on the Energy Commission's website: http://www.energy.ca.gov/2006 summer outlook/.

Background

California and the neighboring western states experienced extreme hot weather conditions, also referred to as a "heat storm," from July 15 through July 28, 2006. On July 24, the California Independent System Operator (CAISO) reported system peak demand of nearly 51,000 megawatts, the highest peak in CAISO's history. Electricity system loads were especially high because both Northern and Southern California experienced record temperatures at the same time. While there were no system wide blackouts, there were thousands of local power interruptions.

Written Comments

The Committee seeks the active participation of interested parties in discussing policy options and associated issues from the July 2006 heat storm.

We encourage parties to submit written comments in advance of the workshop, but no later than 5:00 p.m. on August 25, 2006. Please indicate **Committee Workshop on the July 2006 California Heat Storm** in the subject line or first paragraph of your comments. Please hand deliver or mail an original plus 10 paper copies to:

California Energy Commission, MS-22 Tom Gorin 1516 Ninth Street Sacramento, CA 95812-5512

Participants may also provide an original plus 10 copies at the beginning of the workshop.

Public Participation

The Energy Commission's Public Adviser, Margaret J. Kim, provides the public assistance in participating in Energy Commission activities. If you would like information on how to participate in this workshop, please contact the Public Advisor's Office by phone at (916) 654-4489 or toll-free at (800) 822-6228, by FAX at (916) 654-4493, or by e-mail at [pao@energy.state.ca.us]. If you have a disability and require assistance to participate in this workshop, please contact Lou Quiroz at (916) 654-5146 at least five days in advance.

Technical questions should be addressed to Tom Gorin of the Energy Commission's Demand Analysis Office at (916) 654-4759 or by e-mail at [tgorin@energy.state.ca.us]. News media inquiries should be directed to Claudia Chandler, Assistant Executive Director, at (916) 654-4989.

JEFFREY D. BYRON Commissioner and Presiding Member Electricity Committee JOHN L. GEESMAN Commissioner and Associate Member Electricity Committee

Mail Lists: Energy Policy

The purpose of this workshop is to discuss the July 2006 heat storm in California and to determine what lessons we can learn from the related events and circumstances experienced. The following "Key Questions" will be the subject of panel discussions at the workshop. Other participants may respond to these questions in their oral and written comments. A workshop agenda will be available shortly.

Key Questions -- Tuesday, August 29, 2006

Temperatures and Other Weather Issues Impacting Load

- 1. How does the July 2006 heat storm sequence compare to previous periods of hot and humid summer weather in California and the West?
- 2. How important is it to understand weather patterns within different regions in California and across the West? Demand and supply patterns within different regions in California and across the West? How can this best be accomplished?
- 3. How should we factor heat and summer humidity effects into future load forecasts?
- 4. Will forecasting methods or assumptions need to change to accommodate the possibility of more variability in California's future weather?
- 5. How could electricity load forecasts better accommodate the imprecise nature of weather forecasting?

System Reliability during Extreme Weather Events

Generation / Scheduling

- 1. How well did power plants perform when called upon during the heat storm?
- 2. Did Load Serving Entities (LSE) accurately forecast their customers' loads, and did LSEs and their scheduling coordinators comply with CAISO day-ahead scheduling requirements?
- 3. What role did imports play in maintaining a reliable supply during the July heat storm? How might this role change in the future?
- 4. How well did the interruptible and demand response programs perform during the heat storm event?
- 5. Is California's current 15-17 percent planning reserve adequate for heat storm situations? Should planning reserve margins be set on a month-by-month basis to allow for higher summer temperatures?

Transmission / Distribution

- 6. What implications does the possibility of longer periods of humid weather in summer have for California's transmission and distribution system? Do we need to think differently about transmission planning?
- 7. Would equipment capabilities, maintenance, or operations need to change if California's climate becomes warmer?
- 8. What is the right investment balance between early upgrades and replacement on failure for the distribution system equipment?

Customer Response to Extreme Weather

- 1. How likely are customers to suffer "fatigue" in responding to calls for conservation? Is there a predictable time limit beyond which "snapback" occurs and loads rise?
- 2. How effective were voluntary efforts to reduce demands upon the system during peak periods? How could we better understand the factors that influence customers?
- 3. What are the economic implications to businesses of interruptibles and demand response programs?
- 4. Do adverse weather shocks influence customers to add equipment such as generators and air conditioning to their homes? Should central air conditioning be considered "saturated" for new California construction in all climate zones?
- 5. Should more policy attention be paid to landscaping and building orientation, design and materials or other strategies that could reduce the need for cooling equipment even in warmer climates?
- 6. How might time-of-use pricing or smart meters influence customer choices in the face of warmer or more variable weather?
- 7. What could we learn about preparing Californians for heat events? How do utilities in other parts of the country with significantly hot and humid weather prepare customers for heat events?

What Have We Learned? What's Ahead? What Do We Still Need to Know?

- 1. What priority policy actions, new initiatives, or programs are needed to address the issues raised in these discussions?
- 2. What needs to be done to increase the coordination between agencies? Would a warmer, more humid or more variable climate require a different mix of agencies and stakeholders to be involved in the state's energy planning process?
- 3. Given that weather forecasting is imprecise beyond a few days out, in what ways could the State be better prepared to respond to such heat storm events?